

ABSTRACT

Fischer-Tropsch (FT) products are formed in a plant utilizing a combination of a plasma reformer reactor (9) and an FT reactor (19). Feedstocks ranging from gases such as methane and natural gas to solids such as petroleum coke and coal are plasma reformed with water and/or CO₂ to produce one or more of hydrogen, oils, liquid alkanes and oxygenated alkanes, oil and waxes.

The specific ancillary equipment, e.g., boilers (16), preheaters, condensers (22) (24), gas liquid separators (19) (25), compressors (18) (18a), etc. will be combined or omitted as needed for treatment of desired raw materials as shown by the Figures.